plurality of strip-shaped light transparent electrodes corresponds to one of the groups of rows of pixels, or one of the groups of column of pixels, in the display panel.

14. (Newly Added) The display device of claim 13, further comprising a drive unit for driving the plurality of strip-shaped light transparent electrodes, the drive unit being adapted to consecutively drive the strip-shaped light transparent electrodes a fixed interval after data is provided to the corresponding group of rows of pixels or the corresponding group of column of pixels.

REMARKS

Claims 1 and 10 have been amended, and new claims 11-14 have been added. Accordingly, claims 1-14 remain pending in the application.

Reexamination and reconsideration of the present application are requested.

35 U.S.C. § 102

The Office Action rejected claim 1 under 35 U.S.C. § 102 over Weber et al.

Among other things, the display device of claim 1 features an optical shutter element including means for selectively transmitting light for ***one group of rows of pixels or one group of columns of pixels at a time to consecutively illuminate the groups of rows of pixels or groups of columns of pixels***. That is, as described in the specification, the optical shutter illuminates only a portion of the display panel at a

time to consecutively illuminate groups of rows, or columns, of pixels in the display panel.

Applicants respectfully submit that no such feature is disclosed in Weber et al. Indeed, Weber et al. specifically teaches with respect to FIG. 9 cited in the Office Action that the switchable transflector 136 includes a non-pixellated liquid crystal device 146 that includes ***continuous*** transparent conductive layers 156 and 158 which enable ***the entire area*** of the switchable transflector 136 to be electronically switched between a reflecting and a transmitting state (see col. 12, lines 4-14; see also col. 2, lines 5-13; col. 3, lines 4-15; col. 4, lines 2-4; col. 7, line 60 - col. 8, line 6).

So, the switchable transflector in Weber et al. does not consecutively illuminate groups of rows, or columns, of pixels in the display panel. Therefore, Weber et al. does not disclose a display device having an optical shutter element including means for selectively transmitting light for one group of rows of pixels or one group of columns of pixels at a time to consecutively illuminate the groups of rows of pixels or groups of columns of pixels.

Accordingly, for at least these reasons, Applicants respectfully submit that claim 1 is patentable over Weber et al.

PROVISIONAL DOUBLE PATENTING

The Office Action has ***provisionally*** rejected claims 1-10 under the judicially created doctrine of obviousness-type double patenting over the claims of U.S. patent application 09/944,318 in view of Weber et al.

Applicants respectfully traverse those rejections for at least the following reasons.

Among other things, the display device of claim 1 includes a display panel, an illumination system, ***and an optical shutter element*** that includes means for selectively transmitting light for ***one group of rows of pixels or one group of columns of pixels at a time to consecutively illuminate the groups of rows of pixels or groups of columns of pixels***.

No such feature is recited in any of the claims of U.S. patent application 09/944,318. Nor is such an optical shutter disclosed by Weber et al. Accordingly, no possible modification of the claims of U.S. patent application 09/944,318 with any teachings of Weber et al. could produce the device claimed in claim 1 of the present application.

Furthermore, as admitted in the Office Action, claims 1-11 of U.S. patent application 09/944,318 do not recite any reflective polarizer in a light path between the backlight and the display panel.

Weber et al. teach that the purpose of their reflective polarizer is to recycle light to the illumination system.

On the other hand, the display devices of claims 1-11 of U.S. patent application 09/944,318 include a completely different illumination system than that disclosed by Weber et al. In the display devices of claims 1-11 of U.S. patent application 09/944,318, the illumination system includes an optical waveguide

comprising "means for selectively coupling out light to the display panel for a group of rows of pixels or a group of columns of pixels and is provided with means for coupling in light in a direction which is substantially parallel to the exit face."

Clearly, such an illumination system is completely different from that disclosed in Weber et al. So, Weber et al. provides no motivation for modifying the device of claims 1-11 of U.S. patent application 09/944,318 to further add a reflective polarizer in the light path between the backlight and the display panel.

Accordingly, for at least these reasons, Applicants respectfully submit that claims 1-10 are patentable over the claims of U.S. patent application 09/944,318 in view of Weber et al.

NEW CLAIMS 11-14

Claims 11-14, dependent from claim 1, are deemed patentable for at least the reasons set forth above with respect to claim 1, and for the following additional reasons.

Claim 11

Among other things, in the display device of claim 11, the optical shutter is disposed in the optical path between the illumination system and the display panel. An exemplary embodiment of this feature is shown in FIGs. 1 and 2.

Claim 12

Among other things, in the display device of claim 12, the optical shutter includes a plurality of strip-shaped light transparent electrodes. An exemplary embodiment of this feature is described at page 5, lines 7-8.

Applicants respectfully submit that Weber et al. discloses no such feature.

Claim 13

Among other things, in the display device of claim 13, each of the plurality of strip-shaped light transparent electrodes corresponds to one of the groups of rows of pixels, or one of the groups of column of pixels, in the display panel. An exemplary embodiment of this feature is described at page 5, lines 15-20.

Applicants respectfully submit that Weber et al. discloses no such feature.

Claim 14

Among other things the display device of claim 14 includes a drive unit for driving the plurality of strip-shaped light transparent electrodes, the drive unit being adapted to consecutively drive the strip-shaped light transparent electrodes a fixed interval after data is provided to the corresponding group of rows of pixels or the corresponding group of column of pixels. An exemplary embodiment of this feature is described at page 5, lines 15-20.

Applicants respectfully submit that Weber et al. discloses no such feature.

CONCLUSION

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 1-14 and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (703) 715-0870 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

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Date: 17 March 2003

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Version with Markings to Show Changes Made

In the Specification:

The following text was inserted before page 1, line 1:

CROSS-REFERENCES TO RELATED APPLICATIONS

This application claims priority benefit under 35 U.S.C. § 119 from European Patent Application 00203129.2, filed on 11 September 2000.

BACKGROUND AND SUMMARY

Technical Field.

The following text was inserted before page 1, line 12:

Description.

The following text was inserted before page 3, line 24:

BRIEF DESCRIPTION OF THE DRAWINGS

The following text was inserted before page 3, line 33:

DETAILED DESCRIPTION

The section heading at the top of page 7 has been amended as follows:

[Claims] We Claim:

In the Claims:

Claims 1 and 10 have been amended as follows:

1. (Amended) A display device [(1)] comprising:

a display panel [(2)] having a first light-transmissive substrate [(3)] provided with electrodes [(6)] at the area of pixels arranged in rows and columns, a second light-transmissive substrate [(4)] and liquid crystalline material [(5)] between the two substrates, the pixels comprising a plurality of groups of rows of pixels and a plurality of groups of columns of pixels;

an illumination system [(8)] situated on the side of the second substrate remote from the liquid crystalline material, said illumination system comprising a backlight [(12)]; and

an optical shutter element [(21)] including [provided with] means for selectively transmitting light for [a] one group of rows of pixels or [a] one group of columns of pixels at a time to consecutively illuminate the groups of rows of pixels or groups of columns of pixels; and[, characterized in that the display device comprises]

at least one reflective polarizer [(35)] in [the light] an optical path between the backlight [(12)] and the display panel [(2)].

10. (Amended) A display device as claimed in claim 1, [characterized in that] wherein the display device comprises drive means [(9)] for presenting signals to data

and column electrodes [for the purpose of writing] to write data to the pixels, and for selectively activating at any one time only a part of the [illumination system] optical shutter system associated with the one group of rows of pixels or the one group of columns of pixels.

Claims 11-14 have been added.